

Sonoma County Water Agency: Water Supply and Transmission System Descriptions From Interactive Map

1. **The Water Cycle:** There is no new water on Earth. The water cycle has been recycling the water on our planet for billions of years. The water evaporates from a liquid into water vapor in the air. It condenses into clouds, and then falls as rain, snow, sleet, or hail and is collected by streams, rivers, and lakes
2. **Lake Pillsbury:** Lake Pillsbury is located on the Eel River in Lake County, and has a storage capacity of 86,388 acre-feet. It is a man-made reservoir, created in 1923 and operated by Pacific Gas and Electric (PG&E).
3. **Cape Horn Dam:** Cape Horn Dam creates Lake Van Arsdale on the Eel River, in Mendocino County. Cape Horn Dam is owned and operated by Pacific Gas and Electric (PG&E). .
4. **Potter Valley Project:** The power company Pacific Gas and Electric (PG&E) owns the Potter Valley Project, which diverts water from the Eel River into a tunnel constructed through a mountain ridge and into the Russian River watershed.
5. **Lake Mendocino:** Coyote Valley Dam was built by the U.S. Army Corps of Engineers to create Lake Mendocino. It began storing water in 1959, and captures a drainage area of about 105 square miles. It can hold up to 118,000 acre-feet.
6. **Russian River:** The Russian River Watershed is located in Mendocino and Sonoma counties. The river is 110 miles long, and drains a land area of 1,485 square miles.
7. **Lake Sonoma:** Located about 14 miles northwest of Healdsburg, Warm Springs Dam forms Lake Sonoma. Built at the confluence of Warm Springs Creek and Dry Creek, this lake began storing water in 1984 and has a total storage capacity of 381,000 acre-feet.
8. **Inflatable Dam:** The Sonoma County Water Agency has an Inflatable Dam that is put up across the Russian River during the summer. This dam helps the Agency meet the peak demand for water in the summer. There are fish ladders on both sides of this dam so that migrating salmon can swim past it to lay their eggs further upstream.

9. **Infiltration Pond:** Behind the Inflatable Dam, water is diverted from the Russian River and into infiltration ponds, where it filters down into the ground. The ponds help the agency meet summertime water demand.
10. **Ground Water:** The water is naturally filtered as it trickles down deep into the gravels next to the Russian River.
11. **Collector Wells:** The Sonoma County Water Agency has constructed six collector wells near the Russian River near Forestville. Groundwater is pumped by each collector well from 50 to 60 feet below the ground.
12. **Aqueduct:** Aqueducts are underground pipes that transport water from the Collector Wells to the Agency's water customers. The naturally filtered water entering the collector wells is extremely clean and requires no additional treatment. However, chlorine is added as a precaution against possible contamination as it travels through the aqueduct.
13. **Booster Pumps:** Whenever the water needs to be moved uphill, Booster Pump Stations lift the water up and over. It takes a lot of energy to lift water, which is why the Agency has implemented its Carbon Free Water by 2015 program.
14. **Storage Tanks:** The water is lifted by the Booster Pump Stations into the Storage Tanks, the large green circular water tanks you usually see on hillsides. Since the tanks are usually situated higher than the cities, once the water is in the storage tank, it is delivered by gravity to the customers.
15. **Our Customers:** The Sonoma County Water Agency delivers naturally filtered drinking water every day to 600,000 residents in portions of Sonoma and Marin counties. Our customers are: Windsor, Santa Rosa, Rohnert Park, Cotati, Petaluma, Sonoma, North Marin Water District, and Valley of the Moon Water District.